

Title (en)
ARCHITECTURE OF A REFLECTIVE SPATIAL LIGHT MODULATOR

Title (de)
ARCHITEKTUR EINES REFLEKTIERENDEN RÄUMLICHEN LICHTMODULATORS

Title (fr)
ARCHITECTURE DE MODULATEUR OPTIQUE SPATIAL REFLECHISSANT

Publication
EP 1514256 A1 20050316 (EN)

Application
EP 03739021 A 20030530

Priority

- US 0317342 W 20030530
- US 39038902 P 20020619
- US 37805803 A 20030227

Abstract (en)
[origin: WO2004001717A1] The invention is a spatial light modulator (100) having selectively reflective deflectable micro mirror array (103) plates (202) fabricated from a first substrate (105). On another substrate there is addressing and control circuitry (106) for the micro mirror array (103), which allows the control circuitry (106) to control a voltage applied to selected electrodes (126) associated with the micro mirror plates (204). Typically, the control circuitry (106) includes a display control (108), line memory buffers (110), a pulse width modulation array (112), and inputs for video signals (120) and graphic signals (122). The mirror array substrate (105) further has a spacer support frame (210) and hinges (206), wherein when an electrostatic force is applied to the micro mirror array plates (204), the hinges attached thereto allow the mirror plates (204) to rotate relative to the spacer support frame (210). This rotation produces the angular deflection for the reflecting light in a selected direction. The first and second substrate are bonded together.

IPC 1-7
G09G 5/00; G09G 3/34; G02B 26/08; G02B 26/00

IPC 8 full level
G09G 5/00 (2006.01); **G02B 26/08** (2006.01); **G05D 25/02** (2006.01); **G09G 3/20** (2006.01); **G09G 3/34** (2006.01)

CPC (source: EP KR US)
G02B 26/0841 (2013.01 - EP KR US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2004001717 A1 20031231; AU 2003245382 A1 20040106; CA 2472350 A1 20031231; CA 2472350 C 20101019; CN 100414599 C 20080827; CN 1732506 A 20060208; EP 1514256 A1 20050316; EP 1514256 A4 20091111; JP 2005529377 A 20050929; KR 100652857 B1 20061201; KR 20040111336 A 20041231; RU 2004118060 A 20051110; RU 2277265 C2 20060527; US 2004004753 A1 20040108; US 2004145795 A1 20040729; US 7092140 B2 20060815

DOCDB simple family (application)
US 0317342 W 20030530; AU 2003245382 A 20030530; CA 2472350 A 20030530; CN 03801745 A 20030530; EP 03739021 A 20030530; JP 2004515727 A 20030530; KR 20047006930 A 20030530; RU 2004118060 A 20030530; US 37805803 A 20030227; US 75697204 A 20040113